



Métis Nation of Alberta Region 3

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May 1, 2020

ATTN: Élise Lacaille
Panel Secretariat
Impact Assessment Agency of Canada
160 Elgin Street, 22nd Floor
Ottawa, Ontario K1A 0H3
IAAC.grassymountain.AEIC@canada.ca

Re: Grassy Mountain Coal Project – Missing Submission

Dear Élise Lacaille,

My name is Nicole Shepherd and I am the newest Métis Nation of Alberta Region 3 Consultation Coordinator. On Wednesday, April 9, 2020 I requested the past submissions made for this project as I had come across one from 2016 in my review that seemed to be missing.

The next day you did confirm the submissions made by the Métis Nation of Alberta Region 3 (MNAR3) or made on our behalf. Attached to this letter I have included “Appendix A” of that document which outlines all relevant requests and “Appendix 2” which outlines new requests at the time in the EIA Review that occurred in 2016. I believe most if not all concerns have been met present day.

Thank you for your assistance.

Sincerely,

<Original signed by>

Nicole Shepherd
Region 3 Consultation Coordinator
Métis Nation of Alberta

Appendix A Summary of Relevant Requests

Air Quality Requests

Number	Concern	Request
1	Air Quality Background Data	MNAR3 request that Riversdale comment on the representativeness of the background NOX, SO ₂ , CO, PM _{2.5} , and PM ₁₀ levels as taken from the Lethbridge and Nelson Kutenai air quality stations.
3	Blast Frequency	MNAR3 request that Benga clarify as to whether or not there is a potential for multiple blasts to occur within the same day during mine operations and whether or not there will be a minimum offset period between blasts. MNAR3 request that this information is included the forthcoming Project Update.
4	Impact Assessment Criteria	MNAR3 request that Benga provide a rationale of its magnitude and significance ratings for air-related parameters. Further, MNAR3 request that Benga revises its ratings, adopting a more reasonable approach in line with 'keeping clean areas clean', as was adopted in the Imperial Aspen SAGD Project.
7	Transport Speed and Speed Limits	Since haul road contributes to over 90% of maximum daily fugitive dust emissions for TSP, PM ₁₀ , and PM _{2.5} , and their emissions are exponentially proportional to the mean speed, MNAR3 request that Benga discusses whether the assumed average speeds are a realistic representation of mine operations, what the haul road speed limits will be at the mine site, and how such speed limits will be enforced.
8	Blasting Total Suspended Particles Emission Factor	MNAR3 request that Benga provide justification for applying a TSP emission factor taken from a dated Environment Australia report, as opposed to the most recent edition of the same report or AP-42 11.9, consistent with estimates for other aspects of fugitive dust emissions.
9	Emissions Discounting Factor	MNAR3 request that Benga provide a summary of emission estimate discount factors, along with a scientific rationale for the respective degree of reductions assigned. MNAR3 request that this information be provided in the forthcoming Project Update.
10	Odour Assessment Justification	MNAR3 request that Benga explain why it did not consider the potential additive effects of odourants in its assessment of the potential for the Project to result in offsite odours.

11	Odour Assessment Additive Effects Assessment	MNAR3 request that Benga assess the potential additive effects of odourants in the forthcoming Project Update. Further, MNAR3 request that this information be provided prior to the application being deemed complete.
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Number	Concern	Request
12	Other Gaseous Emissions	MNAR3 request that Benga provides an assessment of the potential for VOC releases associated with mine fleet fueling operations (and the measures being taken to minimize such emissions), and the type and approximate amounts of trace gas emissions that might be associated with using ammonium nitrate/fuel oil for blasting.
13	Best Practices, Dust Management	MNAR3 request that Riversdale provide additional details on the dust control options it considered, and justification for the proposed dust mitigation measures representing best practice.
14	Dust Management Plan Justification	<p>MNAR3 request that Riversdale develops a dust management plan in support of the best practices selected, offering prescriptive details related to aspects of the operations where dust emissions is expected to be a concern. This plan should act as standard protocol for day-to-day operational activities and offer answer to questions such as:</p> <p>i. How often will roads be watered under different weather conditions?</p> <p>ii. What is the maximum timeframe for reclamation of mined areas – backfill and revegetation?</p> <p>iii. What is the maximum drop height and drop time for coal transfer from conveyor?</p>
15:	Dust Management Consultation	MNAR3 request that Riverdale consults with MNAR3 as a stakeholder in Riversdale’s dust management plan development and execution, particularly in aspects related to complaint reporting and resolution protocol to address issues related to dust.
16	Visual Impact	MNAR3 request that Riversdale provides additional details on the visibility changes that traditional land users can expect when they are in the Project’s vicinity. Further, MNAR3 request that this information be provided in the forthcoming Project Update, ideally by conducting a visual impact assessment.
19	Blasting Management	<p>MNAR3 request that Riversdale adopts best practices in blasting operations and strategically plans blasting activities to minimize dust and odour effects on the Project surroundings. Riversdale is also expected to develop, in consultation with Piikani Nation and the Métis Nation, a blasting management plan that gives consideration to:</p> <p>i. minimizing dust and odour effects</p>

		ii. blasting timeframes (i.e., intervals and frequency)
		iii. blasting conditions (i.e., wind and atmospheric conditions)
		iv. notification protocol to the Piikani Nation and the Métis Nation
		v. complaint reporting and resolution protocol to address issues related to dust and odour effects from blasting activities at the mine.
20	Air Quality Monitoring Program	MNAR3, as a community that has the potential to be significantly affected by the Project's air quality effects, requests to be consulted in developing, executing, and future modification to the air quality monitoring program. In addition to local air sampling, which should

Number	Concern	Request
		include a follow-up component to verify initial (EIA) emission estimates and emission reduction factors, the community expects such a monitoring program to incorporate background and regional sampling components to collect benchmarking data for reference by future Project applications should Riversdale decide to expand its operations to access coal resources outside of the current proposed mine permit boundary.
21	Air Quality Data Sharing	MNAR3 requests that Riversdale regularly share with the community air sampling data collected through its monitoring program.

Noise Impacts

Number	Concern	Request
22	<i>Noise Mitigation Best Practices</i>	MNAR3 request that Riversdale provide assurance that Best Practices to mitigate noise emissions are explored and adopted throughout the Project's construction and operation.
23	<i>Community Noise Complaint Process</i>	MNAR3 request that Riversdale support a community noise complaint process that recognizes audible noise and has a mandate to explore potential mitigation.
24	<i>Noise and Wildlife Health</i>	MNAR3 request that Riversdale acknowledge the large uncertainties in extending human values around nuisance noise and noise impact to local wildlife.
25	<i>Traditional Land Use Noise Advisory Committee</i>	MNAR3 request that Riversdale support a committee to hear and consider TLU observations associating industrial noise with a decline in health or abundance of local animals. Further, MNAR3 request that Riversdale works with MNAR3to develop appropriate mitigation and monitoring to verify and manage observed effects on wildlife from Project noise emissions.

Vegetation Communities

Number	Concern	Request
54	Vegetation Sampling	MNAR3 request that Riversdale samples in the non-sampled ecosite phases within the LSA, as there might be traditional use plants present within the non-sampled areas. The data collected would improve the understanding of the distribution of these species in both the LSA and RSA. A minimum sampling of three plots per ecosite phase should be completed.
55	Survey Intensity	MNAR3 request that Riversdale increases the survey intensity (sample size), as 53 detailed survey points is low, particularly for species richness or biodiversity calculations. The proponent should try to meet the goal of five plots per ecosystem stated in its methods.
56	Mapping Methods	MNAR3 request that Riversdale provides a more detailed explanation of its LSA mapping approach and methods, as the current methods are not clear on how polygons were attributed with ecosite phase codes using Alberta Vegetation Inventory (AVI) data. Providing this information would be beneficial in RSA-level mapping of traditional-use vegetation potential. A QA/QC of the baseline LSA and RSA maps should be provided prior to the application being deemed complete.
57	Traditional Plant Use	MNAR3 request that Riversdale complete a study of all traditional uses of vegetation for both the LSA and RSA to assess the Project's effects on cultural and spiritual uses by the Métis Nation. Further, MNAR3 request that this information be provided in the anticipated Project Update.
58	Traditional Plant Survey	The identification of traditional use vegetation potential was determined for the LSA only. MNAR3 request that Riversdale provide information on TU vegetation potential for the RSA for the Planned Development Case, including maps prior to the application being deemed complete.
59	Land Capability Assessment	MNAR3 request that Riversdale describes equivalent capability in the context of ecosite phases and maps each of the assessment scenarios. Further, MNAR3 request that this information be provided in the upcoming Project Update.
60	Seed Mixes	MNAR3 request that that only plant species native to the Crownsnest Pass area are used in the Grassy Mountain Coal Project revegetation program, and that seed for revegetation is sourced from local provenances.

61	Monitoring Plan	MNAR3 request that a more detailed monitoring and adaptive management program is developed immediately in collaboration with members of the Piikani Nation and the Métis Nation, and that MNAR3 is also involved in implementing the reclamation and monitoring program.
62	Revegetation Plan	The MNAR3 agrees with information provided by Piikani Nation to Riversdale on vegetation species of importance to traditional use (e.g., bearberry, sweet pine, juniper, mountain holly fern, yarrow, alpine fern, tree lichen, lodgepole pine, willow, poplar, cottonwood, birch, Saskatoon berry, sage). These species are not explicitly

Number	Concern	Request
		identified or discussed in the revegetation plan. MNAR3 request that Riversdale commit in agreement to developing details of the reclamation plan in close collaboration with members of the MNAR3 in order to restore traditional land use opportunities in the Project area.
63	Cumulative Effects Assessment	MNAR3 request that Riversdale:
		i. addresses current deficiencies with the cumulative impacts assessment in the upcoming Project Update, including explicit provision of pre- and post-development ecosite phases and reduction in quality; this information is critical both for Project assessment and for discussion of any required biodiversity offsetting programs; and
		ii. commits in agreement to development of biodiversity-management plan in collaboration with Piikani Nation and other nations of the Blackfoot Confederacy and the Métis Nation.

Wildlife

Number	Concern	Request
64	Aboriginal Access Plan	MNAR3 request that Riversdale develop a comprehensive Aboriginal Access Plan in collaboration with MNAR3.
65	Wildlife Habitat Mapping	Although Aboriginal groups' information was tabulated, there is no discussion on how this information was used nor if there were specific habitat maps of culturally important wildlife to the Piikani Nation or the MNAR3. MNAR3 request that Riversdale provide species-specific WLSA maps and narrative supporting these maps for culturally important wildlife species. Further, MNAR3 request that this information be provided in the forthcoming Project Update and prior to the application being deemed complete.
66	Winter Tracking Surveys	MNAR3 request that Riversdale conducts winter track surveys and reports on results as part of the anticipated Project Update, to provide a better understanding of current wildlife use in the Project area.

67	Focal Species Wildlife	MNAR3 request that all animals of cultural significance are subjected to a high-level assessment and that descriptions and mitigation measures are provided. Further, MNAR3 request that this information be provided in the upcoming Project Update.
68	SARA Habitat Critical	MNAR3 request that Riversdale, as part of the upcoming Project Update, identify and assess Project effects to SARA-listed species critical habitat.
69	Wildlife Assessment Health	MNAR3 request that, prior to the application being deemed complete, Riversdale conduct a Wildlife Health Assessment given the uncertainty of surface water and multiple pathway exposure to contaminants of concern to Piikani and MNAR3, such as selenium, nitrates and hydrocarbons. Further, MNAR3 request that this assessment include culturally important receptors such as furbearers,

Number	Concern	Request
		ungulates and waterfowl who might be exposed to process waters within the LSA and potentially affected watercourses and waterbodies within the RSA.
70	Wildlife Assessment	Because of the identified Project impacts, MNAR3 request that Riversdale describes quantitatively the loss and deterioration of habitat, wildlife-vehicle collisions, and increased non-Aboriginal hunting pressure on the wildlife populations of species of cultural importance to the Piikani Nation and MNAR3. Further, MNAR3 request that this discussion be provided in the forthcoming Project Update.
71	Traditional Wildlife Harvest	The Wildlife Assessment provides little information on Project effects for MNAR3 land users and harvesters, other than as general statements provided during discussion on effects on recreational hunters and licensed trappers. MNAR3 request that Riversdale provide a focused narrative on the impact of the Project on its wildlife harvesting in the upcoming Project Update and prior to the application being deemed complete.
72	Sensory Disturbance	MNAR3 request that Riversdale assesses the impacts of sensory disturbance (auditory, visual, olfactory) on wildlife and develops mitigation strategies to address the effects of these disturbances. Further, MNAR3 request that this assessment be provided in the anticipated Project Update and prior to the application being deemed complete.
73	Wildlife Monitoring Plan	Consultation with Alberta Environment and Parks (AEP) was identified throughout the discussion on mitigation and monitoring but not with the Piikani Nation, any other First Nation or the Métis Nation. First Nations consultation is discussed briefly in the Preliminary Wildlife Monitoring Program (7.2) section of the assessment. No details are provided. MNAR3 request that specific details be provided on how consultation has been incorporated in the wildlife mitigation and monitoring plan. MNAR3 request that Riversdale consult with MNAR3 to develop and implement a Wildlife Mitigation and Monitoring Plan.

74	Habitat Connectivity and Movement	Coal-conveyor mitigation measures (i.e., raising the conveyor or creating wildlife crossings) are described briefly in the Habitat Connectivity and Movement (7.1.4) section of the wildlife assessment. No details were provided and no mention of consultation with MNAR3 was made. MNAR3 request that it is engaged collaboratively on the formation of detailed conveyor mitigation measures.
75	Wildlife Mitigation Plan	Riversdale provided habitat availability, core habitat, and disturbance permeability statistics for the VCs at the different assessment scenarios at both the WLSA and WRSA levels. Mitigation measures focused on the coal conveyor but the actual mining operations (i.e., pits, waste rock dumps and related infrastructure) might impose constraints on animal movements. MNAR3 request that Riversdale

Number	Concern	Request
		provide additional information on the extraction impacts of coal mining operations on known animal movements in the WLSA and WRSA. Further, MNAR3 request that this information be provided in the forthcoming Project Update.

Water Quality and Aquatic Habitat

Number	Concern	Request
37	Water Quality Analysis	MNAR3 request that Riversdale provides in the upcoming Project Update and prior to the application being deemed complete:
		i. tabulation of the more conservative “reasonable worst case” estimates of all water quality predictions; and
		ii. a description of contingency plans for providing water to Blairmore and Gold creeks should treatment to reduce contaminants to acceptable levels prove unsuccessful.
38	Selenium Analysis	MNAR3 request that Riversdale:
		i. addresses the discrepancy in the reported bulk concentrations of Se in waste rock from Grassy Mountain compared to Elk Valley, considering a peer-reviewed publication that indicates Se levels are very similar between the two areas; and
		ii. if appropriate, recalculates to correct the estimated water quality conditions in Blairmore and Gold creeks and the Crowsnest River, and to correct calculations in the uptake study modelled Water Quality Objectives for Se (see [39]).
		Further, MNAR3 request that this information be provided prior to the application being deemed complete.
39	Selenium Criteria Justification	MNAR3 request that Riversdale provides, in the anticipated Project Update and prior to the application being deemed complete:
		i. justification for using the BC MOE Se guideline for comparisons, for bioaccumulation predictions, and for sulphate-based uptake model predictions rather than the CCME guideline that Alberta has adopted;

		<p>ii. for the bioassays completed by <i>Nautilus</i>, comment on whether growth-dilution might have been a factor when measuring tissue Se and estimating the Enrichment Factors for BLC-water samples given the fast growth that occurred in the test chambers, and comment on whether this influenced the predicted WQOs at given sulphate concentrations;</p>
		<p>iii. comment on the assumptions inherent in the uptake study and potential variation around the predicted WQOs that might result from uncertainties and application of laboratory results to the field;</p>
		<p>iv. comment on the level of confidence that Se will remain below concentrations that cause chronic effects to biota, including invertebrates and sensitive life stages of fish (eggs or embryos), especially given uncertainties with Se concentrations in waste rock; and</p>

Number	Concern	Request
		v. a commitment to biomonitoring that includes measuring Se in attached algae (periphyton) and benthic invertebrates in Blairmore and Gold creeks to ensure that fish tissues remain below the chronic tissue residue guideline of 4 µg Se/g.
40	Wastewater Effluent Disposal	MNAR3 request that Riversdale describes its proposed plans for treatment and disposal of domestic wastewater effluent, and confirms that effluent will not be discharged directly or indirectly to local surface waters.
41	Loss of Tributary Habitat	MNAR3 request that Riversdale provides, in the anticipated Project Update, for Blairmore and Gold creeks:
		i. quantification of the anticipated fish habitat that will be lost due to the Project footprint (lost tributaries), considering flows, lost food supply, effect of climate change, and potential contamination;
		ii. plans or potential options for more equitably dividing flows between the two rivers so that fish habitat in Gold Creek can be sustained under low flow conditions; and
		iii. details of the Offset, Recovery Plan and Stewardship Program suggested as mitigation in the assessment.
42	Cutthroat Trout Mitigation Planning	MNAR3 request that Riversdale:
		i. consults with regulators (AEP and DFO), WCT experts (perhaps that were involved in the Recovery Plan design), and MNAR3to determine the most appropriate mitigation aimed at protecting critical habitat of this threatened species in the Project area; and
		ii. describes how it addressed or plans to address the requirements of the DFO Habitat Protection Order.
43	Consultation on Aquatic Habitat Mitigation	MNAR3 request that Riversdale commit to ongoing consultation about the impacts and mitigation for the Project that includes respectful and meaningful inclusion of traditional knowledge and land use.

44	Fish Habitat Protection During Blasting	MNAR3 request that Riversdale provides an assessment of the potential impact to fish and aquatic habitat that might be caused by using explosives in the vicinity of fish-bearing waters – including the types and weights of explosives, and measures taken to ensure that vibration and noise will not disturb aquatic habitat and fish. Further, MNAR3 request that this assessment be completed as part of the forthcoming Project Update.
45	Sediment Quality Monitoring and Calcite Buildup	MNAR3 request that, for Blairmore and Gold creeks, Riversdale provides measurements of baseline:
		i. sediment quality parameters (notably Se) in pool or depositional zones in the creeks, within representative reaches and tributaries, for comparison to planned operational monitoring data; and

Number	Concern	Request
		ii. calcite (CaCO ₃) buildup in spawning areas or other non-depositional zones, within representative reaches and tributaries, for comparison to planned operational monitoring data.
		iii. MNAR3 also request that this information is provided before the application is deemed complete.
46	Dam Failure Assessment	MNAR3 request that, for Blairmore and Gold creeks, Riversdale provides, prior to the application being deemed complete:
		i. an estimate of the probability of the failure of one or a series of water management dams that would release sediment-laden water downstream to surface waters, including the two creeks and the Crowsnest River;
		ii. if an unintentional accident like a dam failure occurred as illustrated above, a description of the implications to aquatic biota and the remediation that the company would undertake; and
		iii. the proposed notification plan, for communicating in a timely manner to Piikani Nation, should an unintentional accident occur.
47	Monitoring Plans	MNAR3 request that Riversdale:
		i. develops a monitoring plan designed to validate EIA assessment predictions for water quality and aquatic resources and evaluates the effectiveness of mitigation; and
		ii. consults with MNAR3 prior to developing aquatic monitoring plans and prior to any approvals being issued for the Project.

Conservation and Reclamation Plan

Number	Concern	Request
48	Soil Salvage	MNAR3 expect that “All upland soil and subsoils that fall in the proposed disturbance area will be salvaged and stored for reclamation activities”. ^{32F33} Furthermore, due to a lack of detailed soil descriptions conducted during the baseline assessment, MNAR3 expect that more detailed soil characterization and monitoring will be conducted ahead of and during soil salvage operations with a discussion of its how this will be done provided in the upcoming Project Update.
49	Best Management Practice in Soil Handling	MNAR3 request that Riversdale’s mine planners work in direct and close collaboration with its environmental personnel to proactively maximize opportunities for direct placement of surface soils in the conservation and reclamation plan, and that this process is reviewed on a regular basis with Piikani Nation.
50	Revegetation of Soil Salvage Piles	MNAR3 request that soil stockpiles be actively revegetated with native plant species. Further, MNAR3 request that Riversdale consult on the native plant species planned for revegetation to ensure that traditionally used species are included.
51	Reclamation Planning Process	The proponent’s assessment placed tremendous reliance on the conservation and reclamation plan to minimize residual effects, particularly those with respect to vegetation communities, wildlife habitat, wildlife populations and traditional uses. The current conservation and reclamation plan provides insufficient detail to allow confidence in its ability to accomplish these intentions. MNAR3 request that Riversdale commit in agreement to developing details of the reclamation plan in close collaboration with members of MNAR3 in order to protect vegetation and wildlife and to restore traditional land use opportunities in the Project area.
Recommendation 52	Maintaining Traditional Use during Mine Development	MNAR3 request that Riversdale makes every effort to make lodgepole pine and other significant plants available for harvest, and not simply do so “when practical”, as stated above.
53	Reclamation and Water Quality Management	MNAR3 request that Riversdale provide detailed information on how reclamation will be designed to minimize volumes of contact waters, including surface-water-balance assumptions for reclaimed areas over time and that this information is provided in the anticipated Project Update.

Appendix A Summary of Relevant Requests – New Requests to Benga Regarding MNA Concerns

Air Quality

Number	Concern	Request
1	Air Quality Modeling Receptors	Request confirmation that sites important to MNAR3 and Local members were addressed in the air quality impact assessment.
2	Blasting Dust Deposition at Site Boundary	Request confirmation that dust release due to blasting activity will not extend beyond site boundaries and into lands used by MNA members.

Wildlife

Number	Concern	Request
3	Focal Wildlife Species	MNA requests that all animals of cultural and traditional significance to its members be assessed at a high-level, and that impact analysis and mitigation measures be provided in the upcoming Project Update.
4	Harvested Wildlife Impacts	The Wildlife Assessment provides information on project impacts relative to recreational hunting and licensed trappers, but does not specifically discuss wildlife effects on Aboriginal land users and harvesters. MNA requests that Benga provide a detailed assessment of the Project's impact on wildlife harvesting on species of importance to MNA members in its upcoming Project Update and prior to the application being deemed complete.
5	Reclamation Plan	The conceptual Conservation and Reclamation Plan provides limited detail to assess with confidence the timeline and effectiveness of vegetation re-establishment, as noted in the Schaldemose & Associates (2016) review of Benga's (2015) EIA. Wildlife project impacts and cumulative effects assessments rely on anticipated restoration of habitat loss through progressive reclamation. MNA requests that Benga provide an updated assessment of project and cumulative effects, based on the more detailed C&R Plan to be provided in the upcoming Project Update. Further, MNA requests that the application not be approved until predicted recovery of habitat loss is demonstrated with this more detailed assessment.